

Promoter 01

-1161 CACAAACATA CACTCAAAAT CCAGACTCAC ATCTACTCAA TTATGCAACT  
 -1111 TCATCATGAA AACATCAAAA ACAGTCAAAG TAACAAAATC AAGTCAGATT  
 -1061 CAGCACACAA AGCCAGTAAA GATAGAAAAT TTAACGAACG CTCATGCTAA  
 -1011 GCTGCGCAAA ATACTTCCTA ATCAAAACAG TAACAACGAG TAATTAGCAA  
 - 961 AATCCGAGCA GAAAACCTCTC ACCCACCTCC GAAATTCACG TCTTCACTAA  
 - 911 AATTTTCGAA AGGAATCGAT CAATACCAAC CCATTACACA AAATACATAA  
 - 861 TCAAAATGGC GAGAATCGTA CCTGGAAACT TTGCTTCAAG TCGCAGAGAG  
 - 811 AGGAAAAGGA AGATCGTGGA GAAAGGGGTT TAGGGTTTAA GCTCAGACTT  
 - 761 CTATTGGAGT AAATGGGACG GTGTCACATT TTCCGTTTTG GAAATGAACT  
 - 711 TTGGGCTCAC GTTATGGGCT ATTAGATATT TGATGGGCTT TCTAGTAAAT  
 - 661 ACAATATAAG TTATTGGGCT TAGTTTAAAT AAGCCCATGT TGGAAATATT  
 - 611 TGACACATGT CTTGGCTACT AGTGCTAAAC ATGCAACCGA ACAGTTGTCTG  
 - 561 AGACAAGTCG CAGCATATAC AATGGATCAA ACACGCCTAG TGTCGCCGCG  
 - 511 TCTCGCTCAT GTGTCACCTT GTTTCCTCGT TTTTTTTTAA TTTTTCATAA  
 - 461 GTTCTTTTGT TTTATCTTCA ATACAAATTT TTGGCTGTAT CTTGCAAACT  
 - 411 CTTCGATCAT ATCGCCAATA TACGTGAACA CTGGTGATCT AATTTGTTGT  
 - 361 GTTAATTGTT AAATTTAGAT TCTATTCTCC GGTTTAAAAG TGAATTATAT  
 - 311 GTATCATGGT TAAAACATTG TAAGTAAGAT GATAATAAAA TGATAAATTT  
 - 261 AGTTGATGGA TAACGTGAAG CAAAAAATGA GATAGATACA TTTGATTTTG  
 - 211 TCGTATTTTG ACATATGCGG AGAGTGAGCT ACGCGCATGA AGATCAAGAG  
 - 161 AACTTGCTC GAGCTCACAG AGTGACGTGT AAAAAGCTTA GACTGAAGTC  
 - 111 CCCATGCAAA CCTAATCCTA CGTGGCTCAA ACCACGAGCT CACTTGACAA  
 - 61 TATATAAACT CCTCCTAAGT CCCGTTCTCT TCATCCATCT CTCACAACAA  
 - 11 ACAAAAAG -4  
  
 - 3 AAAATG

Figure 1

Promoter 03

-1148 CAAGAGTGTA AAACGTACCG ATCAAATGTC TTTATAAAAA AAACGTGTTG  
-1098 ATGTTGTTCT GTGAATACAA TTAGTTCTGG TTAACAGCTG GTCGACCATT  
-1048 TTCTGATGAG AATTTATGTA AGGCCATTGC TCTGGTGTG AGAAGGTTTA  
- 998 GTTTGGTTCA AGCTAACCGT GGTAGAAAG TTAGAATATA ATGTGTTTCT  
- 948 TGATCAGTGA TATCGATCGG ATTTGTATTA TTCATATTGT TTAATCTTTG  
- 898 AGTAATTCAT AGTGGTAACT CTTTTTTTTT TTTTTTTTTT TTCATATTGG  
- 848 TAACTCTTTG AAATGAAAAA CATAGCTAAG AATTGCTAGC TTTGATTTAG  
- 798 TCGAGACGTA CGAACTCTCG ATTTTGGTTT TTGATTGTG GGTGTAAAAC  
- 748 TCTCGATATT CATAACTCGT AAGATTTTGT ACGTATCATC TTCTTATTCT  
- 698 CTTTCATCGCT CTGTTTTCAA TTTTATGTCA AAACATGGTT TTGGTAATTT  
- 648 CTTTTACTCC TACTTCACGG TTTGAGTTAT AATTTTTTTG GTAAACCCTT  
- 598 AACCACGAGT TTTGATGTAT TTTGACACCT CTAATTATGT GTGTATACGT  
- 548 ACACATATAA TTCGGTATTT TCTTAACATA TATATCCCTC ATAAAAATTT  
- 498 CTTACATGCA TTGTTCGTGA GTGACCCGTT AATATATATA TTGATAGATA  
- 448 CTCTTATAAA ATTATATTCT AAATTTTCAGA TTAAGCTGGC ACAACTATAT  
- 398 TTCCAACATC ACTAGCTACC ATCAAAGAT TGACTTCTCA TCTTACTCGA  
- 348 TTGAAACCAA ATTAACATAG GGTTTTTTATT TAAATAAAAG TTTAACCTTC  
- 298 TTTTAAAAA ATTGTTTATA GTGTCATGTC AGAACAAGAG CTACAAATCA  
- 248 CACATAGCAT GCATAAGCGG AGCTATGATG AGTGGTATTG TTTTGTTTCGT  
- 198 CACTTGTCAC TCTTTTCCAA CACATAATCC CGACAACAAC GTAAGAGCAT  
- 148 CTCTCTCTCT CCACACACAC TCATGCATGC ATGCATTCTT ACACGTGATT  
- 98 GCCATGCAA TCTCCTTTCT CACCTATAAA TACAAACCAA CCCTTCACTA  
- 48 CACTCTTCAC TCAAACCAA ACAAGAAAAC ATACACAAAT AGCAAAAC -1

1 ATGGCTA

Figure 2

Promoter 04

-1037 CAAACCAT TG TTTACACGTC AATTTGAATT GCGTCAAATA TTCGACTGGA  
 - 987 ATCCTACAAC ATATTTCTTC TATTATATCA ATAGGAAGCA ACGAACGTTC  
 - 937 ACATGAAGCC ATGCAAAAAC AAATTGAGAA AAAAAATCAG AAAATTTATG  
 - 887 ACAAGTGGTC TTGCTTCTTA TACTACGTCG TGAATGGATG GTAATAAACA  
 - 837 ATTAAATGTT ACCTCTAGTT TTTTTTTTTT GAGAGAATGG TTTTATCCG  
 - 787 TATATGGCTT ATTACAAGTT TCCTCCTTTT TCGAGTTTGG TTTGAGGTCT  
 - 737 ATATTGAAGA TGAGATACTA AAAATTGAGG TAAATTCTTT AGTGTGAAGG  
 - 687 AAAATTAGTA AATACGATAC GTTTGGAATT GTTTACTACT AAAAAAAAAA  
 - 637 TTGTTTTAGA CCAAGCCAGT CCGACAAAAA GCGGTGTGAA TCATAAGAAG  
 - 587 TATCACATGA TGCTAGACAT AAAAGATTTT TCAAACATGA CAAACAAAT  
 - 537 TGTGAGTGTC TTAGTCATGC CATTGGAAGT AGAACGAAAC TTAGTGATGA  
 - 487 GACACGTAAC ATCAGTGAGA ATCAAGATCT AACTTCGGAC TTATCGTACG  
 - 437 TACCACGTCC ACCTAAGTGT TATCCATATC TACTACATGT CTATCTTCAT  
 - 387 TCAATTTTTT TTTTGCATTA ACTTGTAAC ATAGTGCATA ATAATTAGAA  
 - 337 TCAAGATTTG AATCCAATTC GCTTACTAAA TCCTAAATGT TAAAGCATA  
 - 287 CATGTTTTTC AAATCCTACT TTTAGGTGCT AAGTTTTTTT TCTAAGGTAG  
 - 237 TTAGAGATTG TTAGATTTTA TATCATTGAA CTGATCATCA GTCTCTATAC  
 - 187 TAACTTCTAG ATCTCATTGA ATGTTTACTC AATTTTTTTT AATTTTTTGT  
 - 137 TTGGATAATC GTCTGCTCGT GGTTTTGATG CGTACGAACA CTCGTCACCA  
 - 87 TGCATGTCAA GCTCTCCTTC CTATATAAAC TAAACCACC CATTATTGTC  
 - 37 CTCAAAAACA AACACATCAA CAAACAACA AG -6  
  
 - 5 AAAAAATG

Figure 3

Promoter 06

-1413 CTAAACGAGT AAAGTTTAGC ACGATTGAGA CCACACTGAC CCATAGCAGT  
 -1363 CCAATGAGCT ACGGAAGGCC TAGGGCTTGA GGCTTGATGA GCGCGTGGTG  
 -1313 GAATAGCGTT TGAATCTAAA GTTCGGTTTG GTACGACTTG TAATATGAAA  
 -1263 TAATAATGTA CAAAGAAGTT CTACGCTTAA GGGAAGTGTG TTGTTTTGAG  
 -1213 CTTTGTATTA GGACGTCTAG TGTACAACAA CGAACGTCGT GTATAAGCGA  
 -1163 TCGTTGACTC TGCACATGTA ACTCTTTCCT GAATAAAAAA TCTTTAAGTC  
 -1113 TTTAATTTCT ACATCTTTTA GGATTATATA AACGTTACTA TATAAATAAA  
 -1063 AAAGAAAAAA AAATCAGTTC ACTAACATGC GAGACTTTGG GCTAAATATA  
 -1013 GTGATTCCAA AGAAAATGAG TTATAATATT AATTAATATA AAGCTCATTT  
 - 963 TCTTTGGAAT ATCGTTATAA GAATATTTTA ACTTGGATAT AACTGGGCTT  
 - 913 ACGCCATTTG CATCTCGAGG ATTTTTTGTG TTTGTTTTTG TTTTTTTAAT  
 - 863 ACATTCTCGC ACTTACACAC TAAAAATCAT AATGATCTTC TTAATTCTTT  
 - 813 AGCGGAACCA CCAATTAATC TTTTTATTAA GAACTTTATT ACTTATTTCA  
 - 763 CTTATTTGTG CATACTGCA TTATTTTGGC AGTAACAAAT ATCGCGTTAT  
 - 713 ATATACTGAA ATCCGGACGC ATTAATAATA GGGATATGAT TATATGAACC  
 - 663 ACTATCTAGC TTTGGTAGAA ACCCAATTAT AATCAAATAA TTTACCATTA  
 - 613 TTGAATAAAT TAGGCTATAT AAGTTCATTA ATAGATGCTA TAGGTTTTTC  
 - 563 TTACAAGGCA CACATTTGAT TGTTATTTTC TTTTATATAC ACTGAATGTA  
 - 513 CATGTGTACA CTTGGCATACT ATGGCAAGAT TATGTGTTAC AATATAGACT  
 - 463 GTGCCATTGC CATGCAATGT GACTCCTGTG GCCATTTCTA TCACAATGTG  
 - 413 TCAATCTTGG AGTATCCGTT GTTTATCCTC TAATTTACTG ATTAATTTAT  
 - 363 GAACATGTAT AATTATTTAT ATCATATGAT CTCGTAAGAT ATCTTAGCAT  
 - 313 TTTCCACCAT ATGTTATTAG TAAATCATCT AGATGGATTG ATGTAAATAG  
 - 263 GAAAGTTAAA TTAACACACC AAAAAAGTAA CTGATTAAAA GCATACAACT  
 - 213 TAATATTCAG ATTATGGTAA CTAAATCAGT CTCATGCAAA CTCCAAAAAA  
 - 163 TTATACGAGT CACAACCTCT GATTTTTTTC CGGTAAACA AAATACATAT  
 - 113 TTTCATTTGT ATGCAACCAG AATAAAACAC TAACTATCTC CTTTAAATAC  
 - 63 CATTTTCCCT ACGAGTCTAC GACGCTCTCT AAACCTTCTTA TACAAAACAA  
 - 13 AACACACCC -5  
  
 - 4 AAATATG

Figure 4

Promoter 07

-1118 GATCCGAAAA GTAGAGTTTC GTGGATCTGA TAATTGGAGA AGAGAGAACG  
 -1068 AGCTGAAACC CTAAATTCGG ATAAAGTCTG CAACTTCTGT TGTTTCGGTG  
 -1018 GCGAGAACAA AAATAATGAG AGGAAGAGGA AAATATCGTC GTTTTTGTCT  
 - 968 CACAGTCTCT TTAGCAGCTT TTCTTTAGAT ATTTATTTTA TTTTTTCCAT  
 - 918 GGATAGAGAG AGCTAGGCAT TCCGGTTATT TGGAGATTTT GGAATTTCAA  
 - 868 TTTTGCGGTT TGGTATTTTA TTTTATTTTA TCAATTTGAA CGAAACAGAG  
 - 818 CTTTGTTTTG GTTACGATGC GGTGGATTTT GTTTCGGTTT AGAGTGATAT  
 - 768 ATATTTGGTA CCAAATTAAA CCAAGATTCTG TTTTCGGTAA AAACAAAATT  
 - 718 TGATTTTTTA GCATTTTTTG AAAAATTAGT GTTATATATA TGAGATTTCT  
 - 668 TAATCAAAAT CTCACTTTTA TCCGATTTAG TGGTAGTTCA TAAAGTGGTT  
 - 618 TCATGTATAT GATACCTGAA TAACCAACAT ATGTATTTTA AGAGACACTT  
 - 568 GGAATAATAA TTCTAAATAT CCTAACTACT CGTGTCCGTA TGTTTTGTCA  
 - 518 CGGTGAAACG TGAGAGGACT AGTTTTTGTC ACCCGTCCAT AACATTCTTA  
 - 468 GACATACATT ACTTTGGGAG TGAAAAACAT TAAGCTTATC TTTATCCATA  
 - 418 TATTGTCTTA CCATCAATAG ACAATATCCA ATGGACCGGT GACCTGCGTG  
 - 368 TATAAGTAAT TTTTCAAGAT GCTAAACTT TTATGTATTT CAGAATTAAC  
 - 318 CTCCAAAAC ATTTATTGAC ACACTACTAC TCTTTCCGTA TTGACTCTCA  
 - 268 ACTAGTCATT TCAAAATAAT TGACATGTCA GAACATGAGT TACACATGGT  
 - 218 TGCATATTGC AAGTAGACGC GGAAACTTGT CACTTCCTTT ACATTTGAGT  
 - 168 TTCCAACACC TAATCACGAC AACAATCATA TAGCTCTCGC ATACAAACAA  
 - 118 ACATATGCAT GTATTCTTAC ACGTGAAGTC CATGCAAGTC TCTTTTCTCA  
 - 68 CCTATAAATA CCAACCACAC CTTCACCACA TTCTTCACTC GAACCAAAAC  
 - 18 ATACACACAT AG -7  
  
 - 6 CAAAAAATG

Figure 5

Promoter 09

- 975 TCAGAAAGAG AAGTGAGCTA CCTGCAGTGT CCTCTGTTTT GTCGATGAAG  
 - 925 GATTTTTTAGA TTGGTATGTG ATGAAGTACA ACGAGCTGAT GCCTGCGTTG  
 - 875 ATGGCTATCT TCACCAAAAG TCGTGTTTGT TATGAAGCAC AACGAGCTGG  
 - 825 TGCCTACGTT GATGGCTATA TTCACCAAG GTCGTGTTTC ATAGATCAGA  
 - 775 AGGCACACCT ACAACAATGA GCAGTGCCAA GGTTTGTCT TATTTTGTG  
 - 725 TTGTCAGTTT TAGATTTCTA GATGAATCTT ATGATGTGAT AATGGAAAAA  
 - 675 CGAAAGAAAA GCTTTTGTTA AAGTATCTAT GAGTGATATC ATGATATGTC  
 - 625 AAAAATGTTG CATGGATACA TTGATTCTTT AGTACTTGTT ACGAGCTGCT  
 - 575 AAGAGAGTCG TGTCAAGTTC AATACTTTTC CTTGTCATTT AACATAATTG  
 - 525 CTTGTCTGTT TGGATTCTAT TGTGCGGAAG TTATGATTTA TATTTTCAGA  
 - 475 TTCATATTTT CAATTAGGAA GCTTTAGTTG GAATCAAAGT GGATGACCCT  
 - 425 GATTGAGGAT TTTAATGATC GTTGTGAGAA CCTTTCTTGT AGTTAGTTGG  
 - 375 TGGATTGTAA AAAAATTATA TGTATTTAAC TCTTGATTGA GAGTCAGAAG  
 - 325 TTGGAAAAAT GAATTAAGAG GTTTTCGAAT AAGAGATCAC AGTTATAGTA  
 - 275 TAGTATTAAT TGGATATCAC AATCTATTCA TAATATTAGC TAGTTAGATA  
 - 225 AAATTGTGTT TGATCTTGGC AAGAGGTGTT AAAATAGTAT CATGTTGACA  
 - 175 TGTGGGTATG ACTATTAGTC GTAATTTAAG CTTATGTATA TTTCTTGTA  
 - 125 GAAATGTTCA TGTATCATAA TAAATACAAG TGTATCGAGT TTTTGTATAT  
 - 75 ATAGAGGTCT ATGATTTGGG AAGAAGAACA CAACATAACT CACCACAAAC  
 - 25 ACAATCTAAT CCAAAAAATC AAAAG -1

1 ATGAAT

Figure 6

Promoter 13

-1121 TGACACGCAA CAACCAAAGC CAAAAGGGTG CGTTACCATT AATTCAGGGA  
 -1071 AAGCGAAATA AACCCAAATC TCTCTTCTAA CGAAGTAACA ACTCACCCAC  
 -1021 TTCTCACATT GATTCACTCC TTTCCAGTTT TTACATATAG CCTTCGTTCA  
 - 971 TCAATCACCT TAAGCAAATT GCAATCACAA AAAAAAAAAA GTACAGTACT  
 - 921 TAGCAAAATT TTAAGTTTTT GTTATTTCCA CGGCAACTTA GCAAATATGC  
 - 871 ACCACATATT GACATTAGCT AATATACAAC ACATGTTTTT TTAGAAATGT  
 - 821 ACAAGCATT ACAAATATCC AACACAAAAT GACATGATCG TAGATGATTA  
 - 771 AGATAATTCTG ATCCCTATAA CTAATAGTTT CCAAAACTTC TGCTGACTTT  
 - 721 TCTCTCGACA GCGATGGTAA GAAGAAGGTA CAAAGTTTTG AAGCCCGAAT  
 - 671 ATAACAAAAG GACAGAAAGC TTTTAGTTTT CTAGATAAGA TCTTAGCTTT  
 - 621 GGTCACGTAA AAAAAATTAA AAGTGAATTG GTTAACAATA TAGGAGTACT  
 - 571 TTGTATCCAA AGGTCATTGC AATAAATAAA CACTTAAGTA CTCTGTAGTC  
 - 521 ACACATCTCT AGGAGCTTAA TATTGGATAA TCGCTTGTAG ACTTGTATTA  
 - 471 AAATATTTAG TAGGTCAAAT CCCTATCTTC TACAGTTTCT ACTCTCGTCC  
 - 421 GTACAGACTA CAGACACTAT GCTATAGTTT TGTGTTGAAT TCTACAAAGT  
 - 371 ACAAATTCTT CTTTCGGTGC CAATAACAAA TAAACACAAT TCTCAAATTA  
 - 321 CATTTGTCTA AATTTTTTATT TGATTCGGTA TAAATGTAAC GCTATGTTGG  
 - 271 GAATCATATG ATAAATCCAG ATTAAGACTT CTTATTTAAT TTATTTTTGT  
 - 221 ATATATAAAA TATAATATCC AACCATAAAG TTTTTTTACC GATCGATGAT  
 - 171 AATGTGAATC CAAATATTTT AACAGGATGA TAAATAATTG ATGTGGCTTT  
 - 121 TATAACCGCA GCAATTCTGG CGTGA CTCTC TCCGCAGCAT TTATTTTTCT  
 - 71 CTCTATAAAT TAAAAACATT ACTTACTCTT TCTCTCTTCC ACTTAACTCA  
 - 21 TATCAACCTT CGCCGGA -5  
  
 - 4 AATAATG

Figure 7

-1056 ATCTCTGCAA ATCAAACCTT ATTATTAAGC TACATTTACA TAGTGTCTTT  
 -1006 ATAATTCTCA TGACATAGCA ACATTATTAA ACGACAACCTT TCTAGCTTCA  
 - 956 TTTAAAATGG AAAATCACAT AACACTCACA TTAACATATAC TAACATAACA  
 - 906 CTCACATTAC CGACTAGCAT ATAAATGGAT ATTGATATAA CAATAATCCC  
 - 856 CCAAATTTAT GTCTATTTTG TTCATTATGC AAATGTCCCA AAATGATATA  
 - 806 TCTTGGAAG TACTAACCGG AGACGAGGGT CGAGGTATAG AAGTGATTTG  
 - 756 GTCGAACCGA AATGAGGAAC CCGGGTTTGG ACACCAGGAG CATTTTGGTA  
 - 706 ATCATCCAAA TCAGGGTCAT AGTACAACAT CATTTCGATCG CTGAAGCACC  
 - 656 TGGTGAAGGG AGACAATAAC ACTGCTGCAT CGAACCATAG CCTAAACCAT  
 - 606 CCACCACTCT TCTTATGAAT CGGATATAAC CAGCTGCTAC ACCAGACACT  
 - 556 ACTTGGCTTG TATTCTCTGT CCAGCCGTAC CTCTAGCTGG TTACCTCCGT  
 - 506 TTCCTGGAAC CAGAATCAAA GGGTACACGT TGCTACCCAC AGCTTGACAC  
 - 456 ATCGAGGTCA TCGTCACCAC AACGAGTATC GCTATGACTA CCGAATAATG  
 - 406 TGAAGATATT TTTTTCATTT TCGTTCTAAG AAACAGACTC TCATGGTCAT  
 - 356 GGATCTATGC AGAAAGCTGG AGATTTGAAG AAAAAGGTCC ATTGAATTTG  
 - 306 AAAACAGAG TAGTATCTTA AAACGTAAGG CTTAAGATAA GTAGTATATG  
 - 256 GTGGATATGG AACCCGCGTA ATCATCTAGA GGCTCTACAA ATATTTATTT  
 - 206 TGTATTTTCT TCTTATTTTG TATTTGCCTA CGTGGCATT TACAACGTAT  
 - 156 TTAACCTGAA ACCAGATTTA TGGCCCAATG GGTCGGGTCG ACCCGACCGA  
 - 106 TTTTAACTG CGCTCCTAAC TAAAAAAAAG TCAAAACCCT TTGAAAAACC  
 - 56 TAAAAACGCA ATTTGCTTCG TCGTCTCTCA TCTCTTTCTC TTTCTCCG -9  
  
 - 8 TCGCCACCATG

Figure 8



Promoter 15-2

-1074 GTAAGTCGTT CTCTAATCTT CCATGCCAAT TTGCTCGGTT AAAACCAGAC  
 -1024 TGGTTGGACT GAAAAATCGG TTTTAATTAA TTGAGTTGTG CTTATGAGGT  
 - 974 CTATTGGTTT ATTTTTAAAA TCCTTTGTAG ATTAGGAGAG TACCAACAAG  
 - 924 AGCGAAAGAC ATCACTAAAC ACGAAGAGTG AAAGTGGAAG AAGAGAACTA  
 - 874 TCAAGACTTG ACTCGAAGAC CGGATTGTAC CCGGATGATT CGAAACAGGG  
 - 824 CGGTGCTGGT GCTGGTGCTG GTGGTTGGCT TTCTTGTTGT CTCTGTTTTT  
 - 774 CGGTGAAAAA TTGAGGTTAT TACTCTTTGT CATGTCAATT ATTTAGGTCA  
 - 724 TAGCTGTCCA AGAGACGCGA GACATTAGAC AAGGTAATTA CCGATTGTAT  
 - 674 CCTATATATT CCTATGTAAC GAAATTCAGA TACTACGTAA TCTTAATGTG  
 - 624 TCGATGGAAT GAAAAAATAA AGTATTCTGT AAATATTTTC TATATATTAT  
 - 574 TTAGCATATA TACGCTTTAT AAATTATAAA TTTGGTCCCT CCCAAATACA  
 - 524 TGAAAACAAT GTAGTGATAA AAAAAAACA AATTCTGTAT ATATGCTATT  
 - 474 TTTATAACAT AACAAGCATT TTTCTTAGTC GGTTAAAATT TCAAGTGTTT  
 - 424 AATACTTTTA TATAATTATG AACGTAAGTT ATAATCTATG TTTTTTTTGG  
 - 374 TCAGTCCATT ATTGATTATT CCATTCACAC TATATGCAAC CTATATTCTT  
 - 324 CCTATGAAAC TTTTGATCGT GTGTTAAATA ATAATACAAA TTTGATTTCA  
 - 274 TCTAATAGGT GGGTGGGGAC TCTCTAATTA CGTTCTTTGA CATCTACTCA  
 - 224 TCAACATTTG GCTAATCTTT CTAAAGGAAT TCCATCTACC GGTCATTTTT  
 - 174 GTTTAAATGC TCTCTTGTA CTAAAAGTCC GTACCAAAC TGTGTAATTT  
 - 124 CATTAAACAT TAATTATTTA GTCCATTCCA TGTCAAATAT GACTTCTATG  
 - 74 CTCTTGTCCT ATAAATTTTA AAGCAATGAG GATTCACCAA GTATACATGC  
 - 24 ATAACAAATT AAGAGCGAG -6  
  
 - 5 CAATAATG

Figure 9

Promoter 16

-1044 GTGAGAAAAT TCATGAGCAC TCTTAGAAAT GTAAATAGTT TGATTTGAAG  
 - 994 AAATGTGGTT TTTAAGAAGA TAATTGCAAA ACTCAGAAAG GATTTCACAA  
 - 944 AAAACAATTC GTGAAATCTT TCCTGAATTT CGTAAAATCC TTTCTAAATT  
 - 894 TTAGAAAATT ATTATTTGAA TGATTTTACG AAATTCGGA AAGAATCTAT  
 - 844 AAAATTCAGG AAAGATATCA TAAAATTTAT GAAGAGTTAT ACACAACAAA  
 - 794 AAGAAATTTT TGAATTTTCAT GAAATCCTTC GTAATTGCTT ACATTCCTTC  
 - 744 CTAAATTTTG TAAATTTCTT CCTGGATTTT CTTTTCGCGAG AAAATAGGGG  
 - 694 CATATATTTT TTACGGGAAA TTTTTTGACG AAAACTTATT TTGGCGGAAA  
 - 644 AAATTGTCAG GAATTTTTTG TAATGAATAT GTGTATTTTT TTAATTGTTA  
 - 594 ATTTTAATAA TAAAATAAAA TAGTTATCTG AATGTTATTT ATGTCAAAAA  
 - 544 AAAATATGAA TGCTATTTTT GTCTTAAAAA CTTAAAATTG TACTATTTGA  
 - 494 AGGAATTTCA TTTTATTTTA TTAATGTGAT TAGATTTATA ATTAAATATA  
 - 444 ATTAAATGAT TGTAATACT AACTTAAATT CTTATTTATA AACATAAAGT  
 - 394 AATATTTAAT TTTCTTTAAT TAAAAATACA TATTTTATTT TCATAATTTA  
 - 344 TTTTGCTTTT TTTTTTTTTT AGTTTGTGATT TATTTTAAA CATATAATAT  
 - 294 GAGTATATGA CTATATGACA TAGCATATTG GTTTATTTTG ATTAGATAGA  
 - 244 AAAAGAGACG GGTGAATAAA AGGGTTTAAT ACTATGGTGA ACCCAAGTAT  
 - 194 ATATCGTCCA TAACAAAAC ACTATATAAT TGAGGTTTGT AGATTGTGCA  
 - 144 AACACGTGTG GGCATATCAG CTTGTAGGAT TGCCACATAC ATTATCATGA  
 - 94 GAAGCTTCCA CCAGAATAAA GCAAAACAAA AAACCTCCGAA AGCGGAGAGA  
 - 44 ACAAGGAAAA CTGAAAAACC ATTGTGAAGT ATAGTCCTTG ATGC -1

1 ATGGATT

Figure 10

Promoter 17

-1141 CAAACGAGGC TCCAAATTCA TATTCGGCCT GCATACTTTT GCCCTGGCCC  
-1091 GGTTTTTTTT TTTCTTTTTT TCGGTGTTTC ATAATACATC AGCTTCCATA  
-1041 ACTGGAGCAA CCGTTATAGA AAGACATGTA TAAGAACCCC AAAAAACAG  
- 991 GTACGTCAA AGAGGAAATT CTCATAACAT ACACAATATG CTCCTAATCA  
- 941 GCCATCGTGT TGTGCTGATC TCCTAGGTGA CATTATGTAT ATCTGTTTGA  
- 891 TATTTCTTTA ACACAACATG TTATCAGTTA CCCATCAAAA CGTAGTCAGC  
- 841 TTGAGGTCTT CCAAAAAAAT CCACACTAGA CCTTCCTTCA TCACTTCAAC  
- 791 AGACTTCAA CTTCTATCCC AAAAGGAAAA AACTAAATAA GTTGAAAGGA  
- 741 ATGGTCGAAG GCATGGGGAG ACACCTAATA CGGCAGCTAG ACTAATCCGG  
- 691 TGGATTGATA AGCAAACTCG AAACACTCTT TCCTCTATCA GATTATTGGG  
- 641 GGATAGGAGA TATGACAAAA GACTGCAAAAT GTGGTTTGCT TCTAGAAGTT  
- 591 AAGAGCTTCC GGGATTTTGT TTTTATTTT TTCAGTGTTG TAACAAATTT  
- 541 AAATTCTGTC GCACTTGTCG TAACAACGAT ATTTTTTCTT TGAATATAAT  
- 491 TTAACATTAA ATTAAAAAGA AAAACTAAAT AAATTATTTT GAAGTTAATA  
- 441 TATTATGTTA TTATCTTTGG TTTGCAATAA ATAGATCGAG TCAAGGTCGT  
- 391 TATATGACCA TTGTTTAGTT ACGACGCTAC TTCATACTTG GAATCTAAGG  
- 341 AGAAAAAATG TAACATAGTT CTCAGTACTT AATCACATAG TTCTCAGTTC  
- 291 TTAATCACTT TATTGTAAA ACTTTTCATC GAATAATTAA TGATTTGATC  
- 241 TCCAATCTCA ATTAATTATA TATTTCTAAA GCCAAAAGAG ATAATGAAAG  
- 191 GAGAGGTGGT AGAAAGAAAA CGTTAATGTA TCAAACTCTA ATAAAAGAAA  
- 141 CTGCGTGTAT AGACACGAAG GCTCCGATCT TTTGCATGTC TCGCACGTGT  
- 91 CGTCCTCTTT CTTCTACTT AACACATATA TGCATGCACC CTTCTTAGAA  
- 41 AAGTAGCAAA ACATTGTGAA TCATCGGAGA GAGTGGGAAA C -1

1 ATGGAGA

Figure 11

Promoter 19

-1293 CACCAAGCCT ATACAAACAT AATTTAACGC CGCCTAGTTT TGTTTATTCT  
 -1243 GCACGTAACA TATAAAGCTA ACAGATATGC GACAAAATAT CTATAAATTA  
 -1193 CATATATAAG TATATATAAT ATAAGAATGT TGGATGTATA TATTAGTAGT  
 -1143 TTAATCAATG AAAATATATC TTTATATCTT TATTAAAAAA ACTAAAAATG  
 -1093 TATCTTTATA TACATTTTCGT AGTTTAAAAT CAAAATTCAA GATAGAGCGA  
 -1043 AAATGATTTT TTTTTTTTTT AATGAACCAA AAGTACAACA TTCCTACCTT  
 - 993 TATTTTTAAT AACTCGTTTA TATTCGCCAA TCAGACACAC ACATAGACTT  
 - 943 TTAAAATAGT AAAAGTAACT TAGCCGATTA TTTATGTAAA ATATTCGTAT  
 - 893 AAAATTTTTT TTAACAAATA TATTTGATTT CTCATCTTAT AACCTGTTTA  
 - 843 TTGATCAGAT TACACGAAAA AATAACTAAA CAGATAAATT TACTCGAACT  
 - 793 GCATACAATA GAGATGTATT TGTGCATGAG TGTAGCCCAA AAATGTGTAA  
 - 743 GGAAATAACA CCCATTGGTA GGCCGAGACA TGCCTGTACC ATGGCCGCTG  
 - 693 AAATAGTAGA AGAACCAAAT ACCTACCAA GTACTCTTAA GCTAACGTTG  
 - 643 ACATGATTTA ATTAGATTAA CGATTGAGTA AACGACAAAT TAGCGCTTTC  
 - 593 GTTTTATATT AAAGACGCAC GATATTTAAA TGGCAACTAT ACATTAAAAT  
 - 543 TATATAAAAT ATATAACTAT AACCAATTTG ATAAATGAGA AAAATGTACG  
 - 493 ATATGTCGTA CCACTCCATC CTGACTATGA CTTATGGAGG AAGTCAATGC  
 - 443 TTATCAACTA CTTGCTTATC AATATCCTAT TTATCACTAT CAGTTTTTCT  
 - 393 CTTTTCTATA CATATATTAT TTCCTATAGA TCATGTTGGT CATAATGTAA  
 - 343 TCAACTTAAA ATTTAAGATC TACTAGTTTG TGTTGAAGTA TAACTGTATA  
 - 293 AGCCTAAATT CGAACGTTAG TCTGACTTAA TAGTTAATTC CATTTTGTTT  
 - 243 TGGGTAAATG TTTCAGTTTC ACTGCTGTTT GGAAAATCTT TGGACAGATA  
 - 193 TTGAGATTGG GCTTATAATA TTTATTATTG GGCCTTAATT TAAGAGCCCT  
 - 143 TTTATAGGCA GATACAAAAA CGACGGCGTT TAACTCATCC GCTCAGCGAC  
 - 93 TTCCACATAG CCGTTAAAC GATGATAATA AACCCAATCC GGTTCATCTC  
 - 43 CAACAGAAGA ACGTAATAAC TGATGCTTGT CTTCAAGTCA AC -2  
  
 - 1 CATGGAGT

Figure 12

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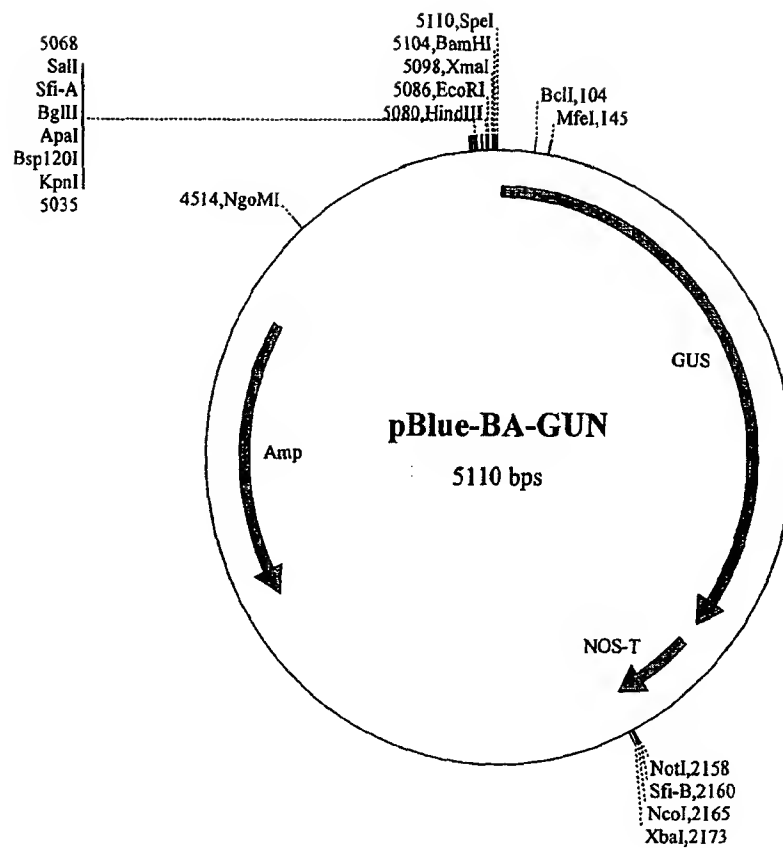


Figure 13

TOGETHER 65086660

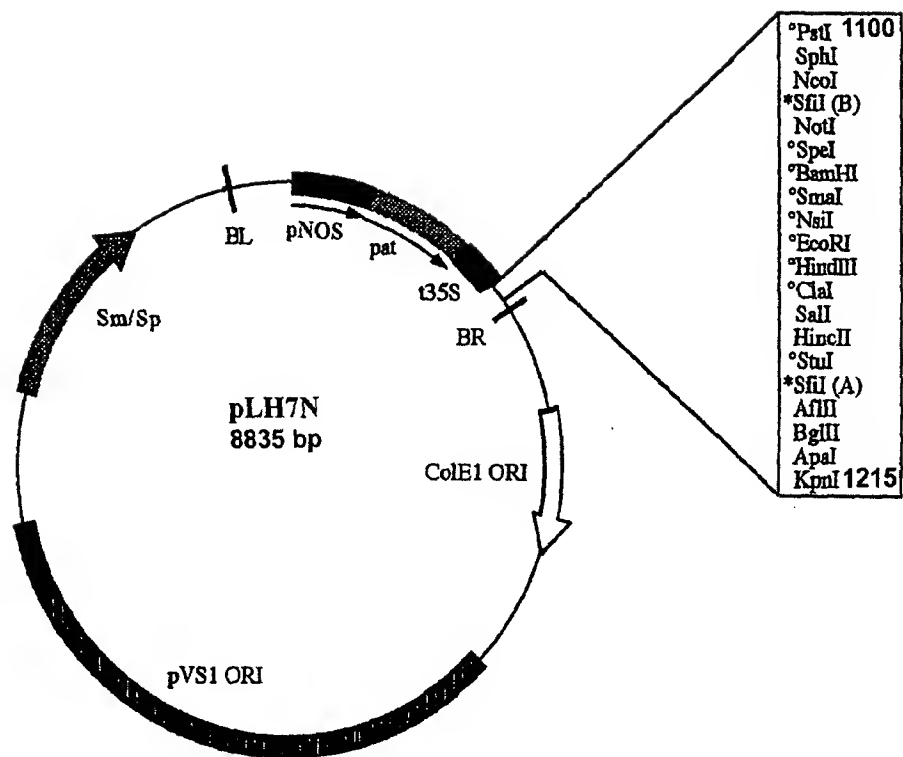


Figure 14

Promoter 6 :

GATCTCTCCCGAAGAAG

CTAAACGAGTAAAGTTTAGCACGATTGAGACCACACTGACCCATAGCAGTCCAATGAGC  
TACGGAAGGCCTAGGGCTTGAGGCTTGATGAGCGCGTGGTGAATAGCGTTTGAATCTA  
AAGTTCGGTTTGGTACGACTTGTAATATGAAATAATAATGTACAAAGAAGTTCTACGCT  
TAAGGGAAGTGTGTTTGTGTTTGTGTTTGTATTAGGACGTCTAGTGTACAACAACGAACG  
TCGTGTATAAGCGATCGTTGACTCTGCACATGTAACCTCTTCTGAATAAAAAATCTTT  
AAGTCTTTAATTTCTACATCTTTTAGGATTATATAAACGTTACTATATAAATAAAAAAG  
AAAAAAAATCAGTTCACCTAACATGCGAGACTTTGGGCTAAATATAGTGAATTCCAAAGA  
AAATGAGTTATAAATAATTAATTAATATAAAGTTAATTTCTTTTGAATATCGTTATAAGA  
ATATTTTAACTTGGATATAACTGGGCTTACGCCATTTGCATCTCGAGGATTTTTTGT  
TTGTTTTTGTGTTTTTTAATACATTCTCGCACTTACACACTAAAAATCATAATGATCTTC  
TTAATTCCTTTAGCGGAACCACCAATTAATCTTTTTTATTAAGAACTTTATTACTTATTT  
ACTTATTTGTGCATACGTGCATTATTTTGGCAGTAACAAATATCGCGTTATATATACTG  
AAATCCGGACGCATTAATAATAGGGATATGATTATATGAACCACTATCTAGCTTTGGTA  
GAAACCCAATTATAATCAAATAATTTACCATTTATTGAATAAATTAGGCTATATAAGTTC  
ATTAATAGATGCTATAGGTTTTTCTTACAAGGCACACATTTGATTGTTATTTTCTTTCA  
TATACTGAATGTACATGTGTACACTTGGCATACTGGCAAGATTATGTGTTACAATA  
TAGACTGTGCCATTGCCATGCAATGTGACTCCTGTGGCCATTTCTATCACAAATGTGTCA  
ATCTTGGAGTATCCGTTGTTTATCCTCTAATTTACTGATTAATTTATGAACATGTATAA  
TTATTTATATCATATGATCTCGTAAGATATCTTAGCATTTTCCACCATATGTTATTAGT  
AAATCATCTAGATGGATTGATGTAAATAGGAAAGTTAAATTAACACACCAAAAAAGTAA  
CTGATTAAAAGCATACAACTTAATATTAGATTATGGTAACTAAATCAGTCTCATGCAA  
ACTCCAAAAAATTATACGAGTCACAACTCTTGATTTTTTTCCGGTTAAACAAAATACAT  
ATTTTCATTTGTATGCAACCAGAAATAAACACTAACTATCTCCTTTAAATACCATTTTC  
CCTACGAGTCTACGACGCTCTCTAAACTTCTTATACAAAACAAAACACACCC

AAATATG

Query: 1 ATTCCAAAGAAAATGAGTTATAATATTAATTAATATAA-AGCTCATTTTCTTTGGAAT 57  
|||||  
Sbjct: 57 ATTCCAAAGAAAATGAGCTTTA-TATTAATTAATATTATAACTCATTTTCTTTGGAAT 1

Figure 15

**Promoter 14 :**

CATCTCTGCAAATCAAACCTTATTATTAAGCTACATTTACATAGTGTCTTATAATTCT  
CATGACATAGCAACATTATTAAACGACAACCTTTCTAGCTTCATTTAAAATGGAAAATCA  
CATAACACTCACATTAACCTATACTAACATAACACTCACATTACCGACTAGCATATAAAT  
GGATATTGATATAACAATAATCCCCCAAATTTATGTCTATTTTGTTCATTATGCAAATG  
TCCCAAATGATATATCTTGAAAGTACTAACC GGAGACGAGGGTCGAGGTATAGAAGT  
GATTTGGTCGAACCGAAATGAGGAACCCGGGTTTGGACACCAGGAGCATTTTGGTAATC  
ATCCAAATCAGGGTCATAGTACAACATCATTCGATCGCTGAAGCACCTGGTGAAGGGAG  
ACAATAACACTGCTGCATCGAACCATAGCCTAAACCATCCACCACTCTTCTTATGAATC  
GGATATAACCAGCTGCTACACCAGACACTACTTGGCTTGTATTCTCTGTCCAGCCGTAC  
CTCTAGCTGGTTACCTCCGTTTCTGGAACCAGAATCAAAGGGTACACGTTGCTACCCA  
CAGCTTGACACATCGAGGTCATCGTCACCACAACGAGTATCGCTATGACTACCGAATAA  
TGTGAAGATATTTTTTTCATTTTCGTTCTAAGAAACAGACTCTCATGGTCATGGATCTA  
TGCAGAAAGCTGGAGATTTGAAGAAAAAGGTCCATTGAATTTGAAAAACAGAGTAGTAT  
CTTAAAACGTAAGGCTTAAGATAAGTAGTATATGGTGGATATGGAACCCGCGTAATCAT  
CTAGAGGCTCTACAAATATTTATTTTGTATTTCTTCTTATTTGTATTGCTTACGTG  
GCATTATACAACGTATTTAACTTGAAACCAGATTTATGGCCC **AATGGGTCGGGTCGAC**  
**CGACCGATT**TTAAACTGCGCTCCTAACTAAAAAAAGTCAAACCCCTTGAAAAACCTA  
AAAACGCAATTTGCTTCGTCTCTCATCTCTTTCTCTTTCTCCG

TCGCCACCATGTTTGAGTACCGGTGCAGCTC

Query: 1 AATGGGTCGGGTCGACCCGACCGATT 26  
||| |||||  
Sbjct: 26 AATCGGTCGGGTCGACCCGACCCATT 1

**Figure 16**



[illegible]

GTGAGAAAATTTCATGAGCACTCTTAGAAATGTAAATAGTTTGATTGGAAGAAATGTGGT  
TTTTAAGAAGATAAATTGCAAACTCAGAAAGGATTTCACAAAAACAATTTCGTGAAAATC  
TTTTCGGAATTTGGTAAATTCCTTTCTAAATTTTAGAAATTAATTTTGAATGAATTT  
ACGAAAATTCGGAAAGAAATCTATAAAAAATCAGGAAAGATATCAATAAAATTTATGAAGAG  
TTATACACAACAAAAAGAAATTTTTGAATTTTCATGAAATCCTTCGTAATTGCTTACATT  
CCTTCCTAAATTTTGTAAAATTCCTCCTGGATTTTCTTTTGCGAGAAAATAGGGGCATA  
TATTTTTTACGGGAAATTTTTTGACGAAAACCTATTTTGGCGGAAAAAATTGTCAGGAA  
TTTTTGGTAATGAATATGTGTATTTTTTTAATTGTTAATTTTAATAATAAAATAAAATA  
GTTATCTGAATGTTATTTATGTCAAAAAAAATATGAATGCTATTTTTGTCTTAAAAAC  
TAAAAATTGTACTATTTGAAGGAATTTCAATTTTATTTTATTAATGTGATTAGATTTATA  
ATTAAATATAATTAAATGATTGTAAATACTAACTTAAATTCTTATTTATAACATAAAG  
TAATATTTAATTTTCTTTAATTAAAAATACATATTTTATTTTCATAATTTATTTTGCTT  
TTTTTTTTTTTTAGTTTTGATTTATTTTTTAAACATATAATATGAGTATATGACTATATG  
ACATAGCATATTGGTTTATTTTGATTAGATAGAAAAAGAGACGGGTGAATAAAAGGGTT  
TAATACTATGGTGAACCCAAGTATATATCGTCCATAACAAAAACACTATATAATTGAGG  
TTTGTAGATTGTGCAAACACGTGTGGGCATATCAGCTTGTAGGATTGCCACATACATTA  
TCATGAGAAGCTTCCACCAGAATAAAGCAAAACAAAAAACTCCGAAAGCGGAGAGAACA  
AGGAAAACTGAAAAACCATTGTGAAGTATAGTCCTTGATGC

```
Query: 1   TGAAATCTTTCTGAATTTCGTAAATCCTTTCTAAATTTAGAAAATTATTATTGAAT 60
          ||| ||||| ||||| ||| ||| ||| ||||| ||||| ||||| |||
Sbjct: 109 TGATATCTTTCTGAATTTTATAGATTCTTTCCGAAATTTTCGTAAATCATTCAAATAAT 50
```

```

Query: 61  GATTTTACGAAATTTTCGGAAGAATCTATAAAATTCAGGAAAGATATCA 109
           |||||  |||||  |||||  |||||  |||||  |||||  |||||  |||||  |||||  |||||
Sbjct: 49  AATTTTCTAAAATTTAGAAAGGATTTCGAAATTCAGGAAAGATTTC 1

```

### Figure 17

### Table 2. Selected Seed-Specific Genes

The selected ESTs and their predicted protein sequences were blasted against protein and DNA sequence databases of NCBI, to identify a possible function of each gene and its corresponding *Arabidopsis* genome sequence.

ID	Description based on BLAST search of EST	Expression Ratio	Clone ID	Accession Number of Genomic Clone	BLAST Alignment of EST to Genomic Sequence	
1	12S Cruciferin	49.9	<u>M30C01</u>	AL021749	13---283 65745---66103	
2	12S seed storage protein	78.8	<u>M29F06</u>	AB005239	191---399 15999---15804	
3	2S SEED STORAGE PROTEIN 3 PRECURSOR	41.5	<u>M09C04</u>	AL035680	8---369 32165---32525	
4	vicilin precursor	19.1	<u>M60B08</u>	AB022223	17---400 2559---2943	
5	similarity to vicilin (7S globulin)	17.3	<u>M51A09</u>	Z99708	15---328 69093---69460	327---399 69490---69563
6	12S seed storage protein	23.4	<u>M19H03</u>	AC003027	34---220 67515---67329	218---400 67229---67048
7	2S SEED STORAGE PROTEIN 1 PRECURSOR	60.0	<u>M52E11</u>	AL035680	22---380 27709---28066	
8	Unknown gene Laccase-like (diphenol oxidase)	11.6	<u>M18A04</u>	AB017064	24---150 66806---66680	148---371 66193---65973
9	Unknown protein Arabidopsis	37.2	<u>M42C12</u>	AC000375	16---399 8408---8025	
10	unknown protein	29.7	<u>M20H04</u>	AC004392	25---390 90414---90780	
11	Putative pyruvate kinase	69.2	<u>M36D01</u>	AB009055	32---374 68629---68966	
12	pyruvate dehydrogenase E1 alpha subunit	27.5	<u>M15B07</u>	AC007323	3---373 48490---48120	
13	Similar to nucleoid DNA-binding protein, aspartic proteinase, and pepsinogen A precursor	7.0	<u>M42A08</u>	AB026658	28---393 68590---68226	
14	A large hypothetical protein	8.6	<u>M40D09</u>	AC004557	18---393 82725---82350	
15	germin-like protein (oxalate oxidase), similar to auxin-binding protein, plant only	42.1	<u>M31F10</u>	AB010694	13---400 18058---17673	
16	Similar to 11beta-hydroxysteroid dehydrogenase, oxidoreductase	39.3	<u>M13A03</u>	AB023037	9---201 52852---52660 395---426 52096---52065	199---388 52589---52400

**Figure 18a**

Figure 1 consists of 12 diagrams illustrating the stages of chick development. The diagrams are arranged vertically and labeled as follows:

- 1. Fertilized egg (single cell)
- 2. 2-cell stage
- 3. 4-cell stage
- 4. 8-cell stage
- 5. Morula stage (solid ball of cells)
- 6. Gastrula stage (hollow ball of cells)
- 7. Early neurulation stage (folded sheet of cells)
- 8. Late neurulation stage (folded sheet of cells)
- 9. Early hatching stage (beak visible)
- 10. Late hatching stage (beak and legs visible)
- 11. Hatched chick (fully formed)
- 12. Hatched chick (fully formed)

ID	Description based on BLAST search of EST	Expression Ratio	Clone ID	Accession Number of Genomic Clone	BLAST Alignment of EST to Genomic Sequence	
17	putative seed storage protein (vicilin-like)	19.0	<u>M32C09</u>	AC006587	23---161 14510---14372 342---400 14033---13975	158---341 14289---14106
18	Lipoxygenase-like protein	16.8	<u>M30E03</u>	AB022215	21---99 47943---48021	96---308 48768---48978
19	Unknown gene, some similarity to selenium-binding protein-like gene	31.8	<u>M55E09</u>	AC002387	26---90 73712---73648 245---400 73308---73153	89---244 72555---73400
20	Cytochrome P450-like protein	25.4	<u>M32E09</u>	AB007648	21---394 16931---16559	

**Figure 18b**

**Table 3. Primers for the PCR amplification of 12 promoter regions**

name	sequence	position	REs	T(°C)	Length 1	Length2
1R	CACT GGATCC TTTTGTGTTGTGAGAGATG (SEQ ID NO: 31)	best+3	Bam	48	23	32
1F	CACT GAATTC ACAAAACATACACTCAAAATC (SEQ ID NO: 32)	best	Eco	48	21	30
3R	CACT GGATCC GTTTTGCTATTGTGTAATGTTTC (SEQ ID NO: 33)	best+0	Bam	48	24	34
3F	CACT GAATTC AAGAGTGTAACACGTAC (SEQ ID NO: 34)	best	Eco	48	18	27
4R2	CACT GGATC C TTGTTGTTTGTGATGTGTT (SEQ ID NO: 35)	best+5	Bam	48	22	31
4F2	CACT GAATTC C CATTTGTTACACGTC (SEQ ID NO: 36)	best	Eco	48	16	25
6R	CACT GGATCC GGGTGTGTTTGTGTTGTAATAAG (SEQ ID NO: 37)	best+4	Bam	52	23	33
6F	CACT GAATTC TAAACGAGTAAAGTTAGCAC (SEQ ID NO: 38)	best	Eco	52	22	31
7R	CACT GGATC C TATGTGTGATGTTTGGTTC (SEQ ID NO: 39)	best+6	Bam	52	22	31

**Figure 19a**

name	sequence	position	REs	T(°C)	Length 1	Length2
7F	CACT GAA TTC GATCCGAAAAGTAGAGTTTC (SEQ ID NO: 40)	best	Eco	52	20	30
9R2	CACT GGATC C TTTTGATTTTTTGGATTAGATTGTTGTGGT (SEQ ID NO: 41)	nb+0	Bam	52	34	43
9F	CACT GAA T C AGAAAGAGAAAGTGAGC (SEQ ID NO: 42)	best	Eco	52	18	26
13R	CACT GGA TCC GGC GAAGGTTGATATGA (SEQ ID NO: 43)	best+4	Bam	60	20	27
13F	CACT CAAT TG ACACGCAACCAACCAAGC (SEQ ID NO: 44)	best	Mfe	60	20	28
14R	CACT GGATC C GGAGAAAAGAGAAAGAGAT (SEQ ID NO: 45)	best+8	Bam	52	19	28
14F	CACT GAA TT C ATCTCTGC AAAATCAAACC (SEQ ID NO: 46)	best	Eco	52	19	28
15R	CACT GGATC C TCGCTCTTAATTGTTATGC (SEQ ID NO: 47)	best+5	Bam	52	21	30
15F	CACT CAATT G TAAGTCGTTCTCTAATCTTC (SEQ ID NO: 48)	best	Mfe	52	21	30
16R	CACT GGATCC GCATCAAGGACTATACTTCAC (SEQ ID NO: 49)	best+0	Bam	56	21	31

Figure 19b

name	sequence	position	REs	T(°C)	Length 1	Length2
16F	CACT GAATTC GTGAGAAAATTCA TGAGCACTC (SEQ ID NO: 50)	best	Eco	56	22	32
17R	CACT GGATCC GTTTCCTCACTCTCTCC (SEQ ID NO: 51)	best+0	Bam	56	16	26
17F	CACT GAATT C AAACGAGGCTCCAAATTC (SEQ ID NO: 52)	best	Eco	56	19	28
19R	CACT GGATCC GTTGACTTGAAGACAAGC (SEQ ID NO: 53)	best+1	Bam	52	18	28
19F	CACT GAATT C ACCAAGCCTATACAAAC (SEQ ID NO: 54)	best	Eco	52	18	27

Position: Distance from the best position ( for reverse primers, it is ATG )

REs : Restriction enzyme sites included

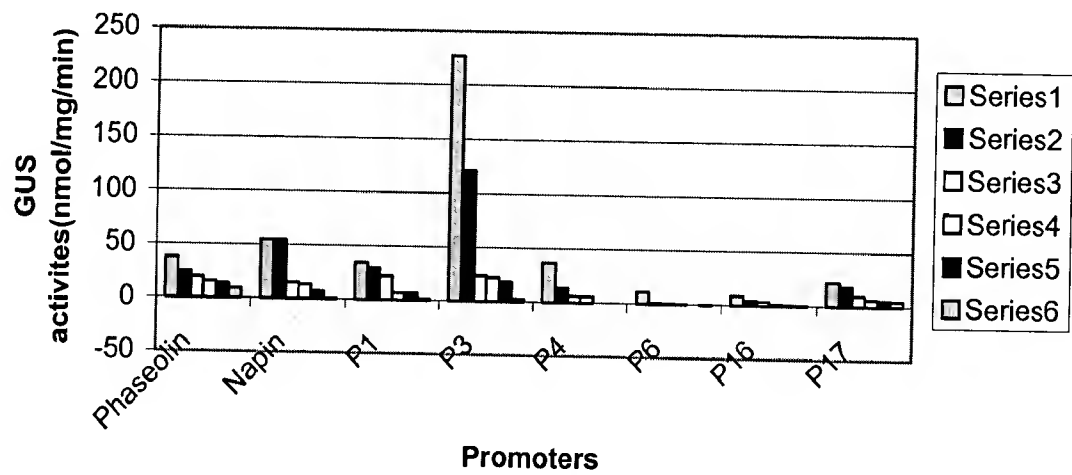
T(°C): Annealing temperature

Length 1: Length of the sequences exist in genomic sequences

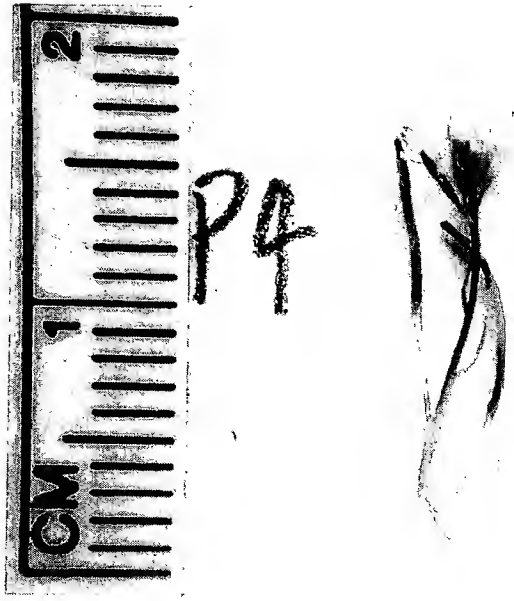
Length 2: Full length

Figure 19c

### Figure 20



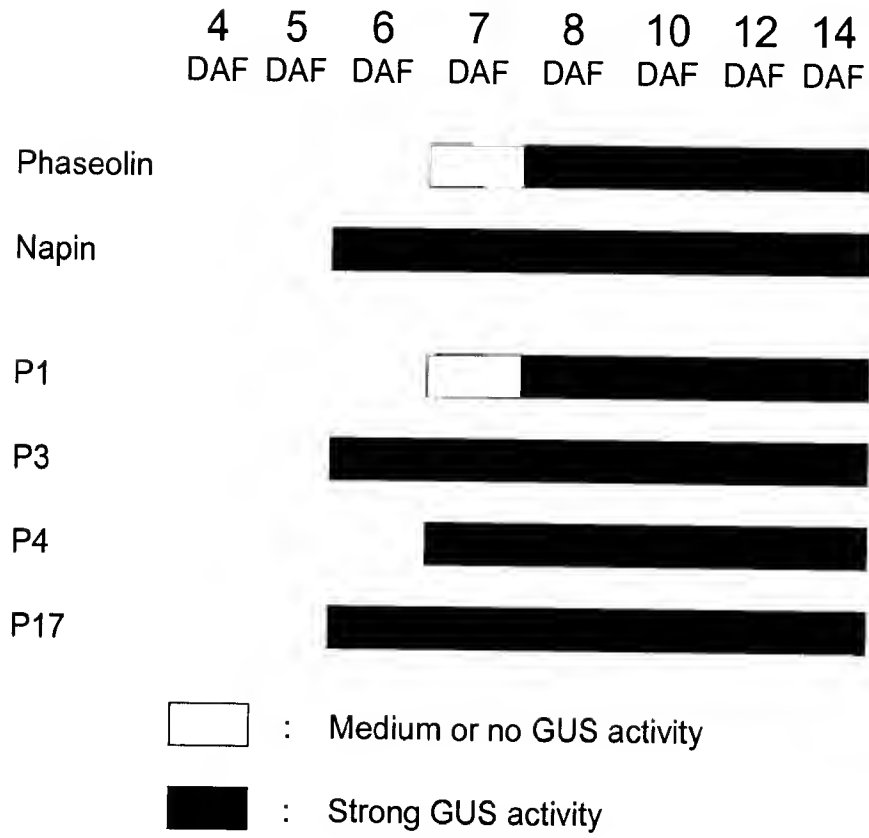
FOOT-650660



**Figure 21**



**Figure 22**



FOOT 6502660